

## CLAIMS

What is claimed is:

1               1. An image printing device comprising:  
2                   an input for receiving an image data signal in said image printing  
3                   device; and

4                   a processor in said image printing device for receiving and  
5                   processing said image data signal;

6                   wherein

7                   said image data signal contains data specifying location data for  
8                   each dot of which an image described by said image data signal is constituted,  
9                   and

10                  said processor determines a size for each said dot based on dot  
11                  density data derived from said location data of said image data signal.

1               2. The image printing device of claim 1, further wherein said  
2                   processor is programmed to count a number of dots specified by said location  
3                   data for printing in a square matrix centered on a particular dot for which dot  
4                   size is to be determined and to calculate a dot density estimation based on said  
5                   number of dots in said square matrix.

1               3. The image printing device of claim 2, wherein a dot size of  
2                   said particular dot is determined based on said dot density estimation.

1               4. The image printing device of claim 2, wherein said square  
2                   matrix has five pixels to a side.

1               5. The image printing device of claim 2, wherein said  
2                   processor, in calculating said dot density, weights each counted dot based on  
3                   proximity to a center of said square matrix.

1                 6.     The image printing device of claim 1, wherein said printing  
2     device prints said image using said location data in said image data signal and  
3     dot size data determined by said processor.

1                 7.     The image printing device of claim 1, wherein said printing  
2     device is a laser printer.

1                 8.     The image printing device of claim 1, wherein said printing  
2     device is an ink-jet printer.

1                 9.     The image printing device of claim 1, wherein said printing  
2     device is a fax machine.

1                 10.    A method of printing an image with an image printing device  
2     based on an image data signal that comprises data specifying print location data  
3     for each dot that constitutes said image, said method comprising determining a  
4     size for each said dot based on said print location data of said image data  
5     signal.

1                 11.    The method of claim 10, wherein said determining a size for  
2     each said dot further comprises, determining a density of dots around that dot  
3     for which size is being determined and determining said size for that dot based  
4     on said density.

1                 12.    The method of claim 10, further comprising:  
2                     counting a number of dots specified by said print location data for  
3     printing in a square matrix centered on a particular dot for which dot size is to  
4     be determined; and  
5                     calculating a dot density estimation based on said number of dots  
6     in said square matrix.

1                   13. The method of claim 12, further comprising determining a  
2 dot size of said particular dot is based on said dot density estimation.

1                   14. The method of claim 12, further comprising defining said  
2 square matrix as having five pixels to a side.

1                   15. The method of claim 12, wherein said calculating a dot  
2 density estimation further comprises weighting each counted dot based on  
3 proximity to a center of said square matrix.

1                   16. The method of claim 10, further comprising printing said  
2 image with said printing device using said location data in said image data signal  
3 and dot size data.

1                   17. An image printing device comprising:  
2                   means for receiving an image data signal in said image printing  
3 device; and  
4                   processor means in said image printing device for receiving and  
5 processing said image data signal, wherein said image data signal contains data  
6 specifying location data for each dot of which an image described by said image  
7 data signal is constituted,  
8                   said processor means comprising means for determining a size for  
9 each said dot based on dot density data derived from said location data of said  
10 image data signal.

1                   18. The image printing device of claim 17, further wherein said  
2 processor means comprises:  
3                   means for counting a number of dots specified by said location  
4 data for printing in a square matrix centered on a particular dot for which dot  
5 size is to be determined; and  
6                   means for calculating a dot density estimation based on said  
7 number of dots in said square matrix.

1                   19. The image printing device of claim 18, wherein a dot size of  
2 said particular dot is determined based on said dot density estimation.

1                   20. Computer-readable instructions stored on a media for  
2 recording computer-readable instructions, wherein said instructions cause a  
3 processing device, that receives an image data signal comprising data specifying  
4 print location data for each dot that constitutes an image, to determine a size  
5 for each said dot based on said print location data of said image data signal.

1                   21. The computer readable instructions of claim 20, wherein  
2 said instructions further cause said processing device to:

3                   determine a density of dots around that dot for which size is being  
4 determined; and  
5                   determine said size for that dot based on said density.

1                   22. The computer readable instructions of claim 20, wherein  
2 said instructions further cause said processing device to:

3                   count a number of dots specified by said print location data for  
4 printing in a square matrix centered on a particular dot for which dot size is to  
5 be determined; and

6                   calculate a dot density estimation based on said number of dots in  
7 said square matrix;

8                   wherein said size for that particular dot is determined based on  
9 said calculated dot density.